

## CLAIMS

1. A semiconductor epitaxial wafer having an epitaxial layer stacked on a semiconductor substrate, wherein:

plural epitaxial layers are stacked only on a front side of the semiconductor substrate;

an impurity concentration of an epitaxial layer being in contact with the semiconductor substrate among the plural epitaxial layers is high enough for the formation of a gettering site; and

an impurity concentration of the semiconductor substrate is low enough for the suppression of impurity discharge from a back side of the semiconductor substrate.

2. A semiconductor epitaxial wafer having an epitaxial layer stacked on a semiconductor substrate, wherein:

plural epitaxial layers are stacked only on a front side of the semiconductor substrate;

an impurity concentration of an epitaxial layer being in contact with the semiconductor substrate among the plural epitaxial layers is  $2.77 \times 10^{17}$  to  $5.49 \times 10^{19}$  (atoms/cm<sup>3</sup>); and

an impurity concentration of the semiconductor substrate is  $1.33 \times 10^{14}$  to  $1.46 \times 10^{16}$  (atoms/cm<sup>3</sup>).

3. A semiconductor epitaxial wafer having an epitaxial layer stacked on a semiconductor substrate, wherein:

plural epitaxial layers are stacked only on a front side of the semiconductor substrate;

a resistivity of an epitaxial layer being in contact with the semiconductor substrate among the plural epitaxial layers is 0.002 to 0.1 ( $\Omega\cdot\text{cm}$ ); and

a resistivity of the semiconductor substrate is 1 to 100 ( $\Omega\cdot\text{cm}$ ).

4. The semiconductor epitaxial wafer according to any one of claims 1 to 3, wherein the epitaxial layer being in contact with the semiconductor substrate contains boron.